REMARKS

Claims 1, 3-8, 10-13 are pending. Claims 1 and 8 are amended to further incorporate Claims 3 and 5. Claims 4 and 6 have been amended to change dependency. No new matter has been added.

Claims 1, 4-8, and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ghate (US Patent 5,016,817) in view of Laverdiere (US PG Pub 2005/0173003). (Office Action page 2)

Claims 1 and 8 have been amended with the subject matter of claim 3 making this rejection now moot.

Claims 1, 4-8, and 10-13 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Ghate (US Patent 5,016,817) in view of Kumano et al. (US PG Pub 2006/0144777). (Office Action page 3)

Claims 1 and 8 have been amended with the subject matter of claim 3 making this rejection now moot.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ghate (US Patent 5,016,817) in view of Laverdiere (US PG Pub 2005/0173003) alone or further in view of Shirakashi (US PG Pub 2004/0206634). (Office Action page 4)

The method and apparatus now claimed are distinguished from the combination of the prior art references for the following reasons:

Shirakashi teaches that the specific resistance of ultrapure water can be reduced by using an electrolyte. However, it does not teach the method for producing an electrolyte. Also, Laverdiere merely describes the control method of the liquid amount, but it does not describe the production method of electrolyte.

Moreover, the control methods of the cited references are a kind of ***feedback control method***, which controls the pressure (or flow rate) of the supply liquid according to the variation of the discharge rate (or pressure, or flow rate) of the primary fluid so as to adjust the concentration of

the supply liquid in the primary fluid to a stable value. In contrast, in the ***claimed invention***, the ***feedback control is not applied to the liquid supply method***, more specifically, the ***flow rate of the supply liquid does not need to be controlled*** according to the variation of the flow rate of the primary fluid, but despite this, ***a super lean aqueous solution having a stable concentration ranging from 0.00001 to 0.1% by mass can be obtained***. This technical feature is not described in the cited references and not suggested from their combination. Therefore the claimed invention is not *prima facie* obvious from the references.

Generally, regarding the feedback control system, the switching valve for controlling the flow rate of the supply liquid is operated some time later than the flow rate of the primary fluid is varied. For this reason, if the variation of the flow rate of the primary fluid occurs frequently, the concentration of the supply liquid in the primary fluid ***cannot be maintained at a stable value***, especially, at a super low level value of 0.00001 to 0.1% by mass.

Furthermore, none of the cited ***references describe that using a supply liquid circulation tube formed in a hollow fiber shape*** makes it possible to obtain a liquid solution having ***a stable concentration without performing feedback control*** even if variations occurs in the flow rate of the primary fluid.

Example 2 of the invention shows that the pH and the specific resistance are maintained at a stable value without performing the feedback control. As shown in the table below, the ultrapure water flow quantity was varied from 12 L/min to 18 L/min and 24 L/min, the ammonia water flow quantity was varied from 0.1 mL/min to 0.13 L/min and 0.2 mL/min accordingly. This result shows that the ammonia water flow quantity is almost linearly varied as the ultrapure water flow quantity is varied in the liquid supply method of the claimed invention. As a result, the pH and the specific resistance of the mixture of the ammonia water and ultrapure water were maintained at a stable level ***without controlling the ammonia water flow quantity according to the variation of the ultrapure water flow quantity***.

However, this prominent effect cannot be obtained from the combination of the cited references, because the cited references do not teach or suggest the technical features of the amended Claims 1 and 8.

Therefore empirically, amended Claim 1, Claim 8 and claims dependant thereon are not

obvious over Ghate in view of Laverdiere alone or further in view of Shirakashi.

Ultrapure water flow quantity (L/min)	Measurement	Ultrapure water pressure (MPa)	Ammonia water pressure (MPa)	pH (-)	Specific resistance (MΩ · cm)	Ammonia water flow quantity (mL/min)
12	First	0.269	0.369	9.77	0.12	0.1
	Second	0.269	0.368	9.73	0.13	0.1
	Third	0.27	0.368	9.74	0.13	0.1
18	First	0.234	0.368	9.77	0.13	0.13
	Second	0.234	0.368	9.72	0.12	0.13
	Third	0.234	0.368	9.72	0.12	0.13
24	First	0.189	0.368	9.73	0.12	0.2
	Second	0.189	0.368	9.73	0.12	0.2
	Third	0.189	0.368	9.73	0.12	0.2

In view of the above amendment and showing, applicant believes the pending application is in condition for allowance.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1105.

Respectfully submitted,

Dated: July 13, 2009

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